Dear Tollhouse,  
My understanding is that you need assistance with your cookies. Well I’m just the cookie eating expert you need! I hear that the purpose of your experiment was to make a better tasting cookie. Well in order to do this we should look at what you did.

You purposely changed the number of chocolate chips per cookie. This is called the independent variable.

Your levels of IV (the numbers you had) were 5 chips in the first recipe, 10 in the second, and 20 chips per cookie in the third recipe.

Your dependent variable is what you measured. In this case, it was the number of cookies eaten.

In order to keep an experiment fair, you must identify your constants which are the things that must stay the same. For this experiment, one thing you should never change the flavor of cookie dough. If you were to also change this, then people might eat more of one type of cookie based on the flavor of the dough not the number of chips in it making the averages inaccurate.

I’m sorry to tell you that your hypothesis (that people would eat more cookies if they had more chips in them) was only partially supported. The average number of cookies eaten with 5 chips was 5, the average number eaten with 10 chips was 11. So far, so good. However, the average number of cookies eaten with 20 chips dropped to only 2.3.

Based on the data above, I would recommend that you put 10 chips in each cookie. Based on the averages, 6 more cookies were eaten from 10 chips then with 5 chips and 8.7 more cookies were eaten with 10 chips then with 20 chips.

One final idea for you to improve the cookies is to make them bigger. By changing the size of the cookies, more people will pick the bigger cookie because they think it is a better deal. The average number of people choosing this will increase.

Once again, should you wish to improve your cookies, the data shows that you should use not too few but not too many chips. Ten chips is “just right”. Thank you for the opportunity to look over your experiment.

Cookie Eating Expert,

Mrs. K